

IN THE CLAIMS:

Please cancel Claims 16 and 18 without prejudice or disclaimer of the subject matter recited therein, please amend Claims 1 and 13, and please add Claims 22 and 23 as follows.

1. (Currently Amended) An apparatus for indicating the history of the environmental conditions of the environment in which said apparatus is used before a unit thereof is reconditioned for reuse to permit a determination of the level of deterioration of a recoverable and reusable unit of said apparatus and a determination of whether the recoverable and reusable unit can be recovered and reused, said apparatus comprising:

a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use of said unit and said apparatus in the environment, depending on the level of deterioration of said unit, which depends on the history of environmental conditions of the environment in which said apparatus was used; and

environmental history indicator means for indicating the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse in accordance with the history of conditions in the environment in which said apparatus was used, said environmental history indicator means being disposed inside said apparatus, said environmental history indicator means having a property variable in accordance with the history of the conditions in the environment in which said apparatus was used, said environmental history indicator means being arranged so as not to participate in any functions of said apparatus during use of said apparatus, said environmental history ~~indicator r means~~ indicator means determining the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse by

permitting a determination of the value of the property thereof, variable in accordance with the history of conditions in the environment in which said apparatus was used,

wherein said environmental history indicator means maintains the state of deterioration of the property.

2. (Previously Presented) An apparatus according to Claim 11 or 13, wherein said environmental history indicator means has an environmental resistivity equal to or less than an environmental resistivity of said unit with respect to such an environmental factor that has an adverse effect on a service life of said unit.

3. (Previously Presented) An apparatus according to claim 1, wherein said environmental history indicator means is arranged to be mountable and dismountable on and from a body of said apparatus either singly or together with said unit and is formed in such a shape as to enable an inspection device to measure a property of said environmental history indicator means in a state of being dismounted from the body of said apparatus.

4. (Previously Presented) An apparatus according to claim 1, wherein said unit includes an optical member, and said environmental history indicator means has a property which varies according to an environmental history with respect to temperature and/or humidity.

5. (Previously Presented) An apparatus for indicating the history of the environmental conditions of the environment in which said apparatus is used before a unit thereof is reconditioned for reuse to permit a determination of the level of deterioration of a recoverable

and reusable unit of said apparatus and a determination of whether the recoverable and reusable unit can be recovered and reused, said apparatus comprising:

a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use of said unit and said apparatus in the environment, depending on the level of deterioration of said unit, which depends on the history of environmental conditions of the environment in which said apparatus was used; and

an environmental history indicator member disposed inside said apparatus, said environmental history indicator member having a property variable in accordance with the history of the conditions in the environment in which said apparatus was used, said environmental history indicator member being arranged so as not to participate in any functions of said apparatus during use of said apparatus, said environmental history indicator member determining the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse by permitting a determination of the value of the property thereof, variable in accordance with the history of conditions in the environment in which said apparatus was used,

wherein said environmental history indicator member maintains the state of deterioration of the property,

wherein said unit includes an optical member, and said environmental history indicator member has a property which varies according to an environmental history with respect to temperature and/or humidity, and

wherein said environmental history indicator member is an optical filter having a light transmitting property which varies according to any environmental history with respect to temperature and/or humidity.

6. (Previously Presented) An apparatus according to claim 5, wherein said optical filter as said environmental history indicator member is composed of an ND filter, copper phosphate glass, gelatin or optical glass having a refractive index of substantially 1.6 to 1.65 and an Abbe number of substantially 60.

7. (Previously Presented) A management system for an apparatus for indicating the history of the environmental conditions of the environment in which the apparatus is used before a unit thereof is reconditioned for reuse to permit a determination of the level of deterioration of a recoverable and reusable unit of the apparatus and a determination of whether the recoverable and reusable unit can be recovered and reused, the apparatus comprising a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use of the unit and the apparatus in the environment, depending on the level of deterioration of the unit, which depends on the history of environmental conditions of the environment in which the apparatus was used, and environmental history indicator means for indicating the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse in accordance with the history of conditions in the environment in which said apparatus was used, said environmental history indicator means being disposed inside the apparatus, the environmental history indicator means having a property variable in accordance with the history of the conditions in the

environment in which the apparatus was used, the environmental history indicator means being arranged so as not to participate in any functions of the apparatus during use of the apparatus, the environmental history indicator means determining the degree of deterioration of the recoverable and reusable unit before the unit is reconditioned for reuse by permitting a determination of the value of the property thereof, variable in accordance with the history of conditions in the environment in which the apparatus was used, wherein the environmental history indicator means maintains the state of deterioration of the property, said management system comprising a device to manage the apparatus, wherein a process to be applied to the unit is determined according to a result of measurement, by an inspection device, of the property of the environmental history indicator means.

8. (Previously Presented) A management system according to claim 7, wherein said process to be applied to said unit is a process to determine whether or not said unit is to be reused.

9. (Previously Presented) A management system according to claim 7, wherein said process to be applied to said unit is a process to determine whether said unit is to be reused as it is, or to be reused after cleansing, or to be sent to a material-based classifying recycling process.

10. (Previously Presented) An apparatus comprising:  
a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use; and

environmental history indicator means for indicating the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse in accordance with the history of conditions in the environment in which said apparatus was used, said environmental history indicator means being disposed inside said apparatus to determine the degree of deterioration of said recoverable and reusable unit, said environmental history indicator means having a property variable in accordance with an environmental history of use of said apparatus and being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said environmental history indicator means maintains the state of deterioration of the property, and

wherein the value of said variable property is determined by using an inspection device to inspect said environmental history indicator means, so that said environmental history indicator means comprises means for providing the value of the variable property in response to inspection by the inspection device before the unit is reconditioned for reuse.

11. (Previously Presented) An apparatus including a unit which is recoverable and reusable after use, said apparatus comprising:

an environmental history indicator member disposed inside said apparatus, said environmental history indicator member having a property variable according to an environmental history of use of said apparatus and being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said unit includes an optical member, and said environmental history indicator member has a property which varies according to an environmental history with respect to temperature and/or humidity,

wherein said environmental history indicator member is an optical filter having a light transmitting property which varies according to an environmental history with respect to temperature and/or humidity, and

wherein said optical filter as said environmental history indicator member is composed of an ND filter, copper phosphate glass, gelatin or optical glass having a refractive index of substantially 1.6 to 1.65 and an Abbe number of substantially 60.

12. (Previously Presented) An apparatus according to Claim 11, wherein the property of said environmental history indicator member deteriorates over time and wherein said environmental history indicator member maintains the state of deterioration of the property.

13. (Currently Amended) An apparatus including a lens unit which is recoverable and reusable after use, said apparatus further comprising:

environmental history indicator means for indicating the degree of deterioration of said lens unit before said lens unit is reconditioned for reuse in accordance with the history of conditions in the environment in which said lens unit was used, said environmental history indicator means being disposed inside said apparatus, said environmental history indicator means having a property variable according to an environmental history of use of said apparatus and maintaining the state of the property after the property changes its value in response to the history

of conditions in the environment in which said lens unit was used and being arranged so as not to participate in any functions of said apparatus during use of said apparatus.

14. (Previously Presented) An apparatus according to Claim 13, wherein the property of said environmental history indicator means deteriorates over time and wherein said environmental history indicator means maintains the state of deterioration of the property.

15. (Previously Presented) An apparatus according to Claim 1, 10, or 11, wherein said unit is a lens unit.

16. Cancelled.

17. (Previously Presented) An apparatus according to Claim 1, 10, 11, 13, 19, 20, or 21, wherein said apparatus is an image reading apparatus, a photo printer, or a video camera.

18. Cancelled.

19. (Previously Presented) An apparatus for indicating the history of the environmental conditions of the environment in which said apparatus is used before a unit thereof is reconditioned for reuse to permit a determination of the level of deterioration of a recoverable and reusable unit of said apparatus and a determination of whether the recoverable and reusable unit can be recovered and reused, said apparatus comprising:



a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use of said unit and said apparatus in the environment, depending on the level of deterioration of said unit, which depends on the history of environmental conditions of the environment in which said apparatus was used; and

an environmental history indicator member disposed inside said apparatus, said environmental history indicator member having a property variable in accordance with the history of the conditions in the environment in which said apparatus was used, said environmental history indicator member being arranged so as not to participate in any functions of said apparatus during use of said apparatus, said environmental history indicator member determining the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse by permitting a determination of the value of the property thereof, variable in accordance with the history of conditions in the environment in which said apparatus was used,

wherein said environmental history indicator member maintains the state of deterioration of the property,

wherein said unit is a lens unit.

20. (Previously Presented) An apparatus comprising:

a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use; and

an environmental history indicator member disposed inside said apparatus to determine the degree of deterioration of said recoverable and reusable unit, said environmental history indicator member having a property variable in accordance with an environmental history of use of said apparatus and being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said environmental history indicator member maintains the state of deterioration of the property, and

wherein the value of said variable property is determined by using an inspection device to inspect said environmental history indicator member, so that said environmental history indicator member comprises means for providing the value of the variable property in response to inspection by the inspection device before the unit is reconditioned for reuse,

wherein said unit is a lens unit.

21. (Previously Presented) An apparatus including a unit which is recoverable and reusable after use, said apparatus comprising:

an environmental history indicator member disposed inside said apparatus, said environmental history indicator member having a property variable according to an environmental history of use of said apparatus and being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said unit is a lens unit and includes an optical member, and said environmental history indicator member has a property which varies according to an environmental history with respect to temperature and/or humidity,

wherein said environmental history indicator member is an optical filter having a light transmitting property which varies according to an environmental history with respect to temperature and/or humidity, and

wherein said optical filter as said environmental history indicator member is composed of an ND filter, copper phosphate glass, gelatin or optical glass having a refractive index of substantially 1.6 to 1.65 and an Abbe number of substantially 60.

22. (New) An optical apparatus comprising:

a lens unit which is recoverable and resuable after use; and

an environmental history indicator member disposed inside said apparatus, said environmental history indicator member having a property that varies according to the environmental history of use of said optical apparatus,

wherein the service life of said lens unit is affected by an environmental factor,

wherein the environmental factor causes the property of said environmental history indicator member, and said lens unit to deteriorate,

wherein said environmental history indicator member resists the deteriorating effect of the environmental factor less than said lens unit, and

wherein said environmental history indicator member maintains the state of deterioration of the property of said environmental history indicating member even if it is dismounted from said optical apparatus.

23. (New) An optical apparatus comprising:

a unit which is recoverable and resuable after use; and

an environmental history indicator member disposed inside said apparatus, said environmental history indicator member having a property that varies according to the environmental history of use of said optical apparatus,

wherein the service life of said unit is affected by an environmental factor,

wherein the environmental factor causes the property of said environmental history indicator member and lens unit to deteriorate,

wherein said environmental history indicator member resists the deteriorating effect of the environmental factor less than said unit,

wherein said environmental history indicator member maintains the state of deterioration of the property of said environmental history indicating member even if it is dismounted from said optical apparatus, and

wherein said optical apparatus is an image reading apparatus, photo printer or a video camera.